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TRAINING STUDENTS TO TUTOR.

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RESEARCH HAS BEEN PROGRESSING IN SANTA MONICA, CALIFORNIA, ON A PROGRAM WHICH TRAINS 5TH AND 6TH GRADE STUDENTS TO TUTOR 1ST GRADE MEXICAN AMERICANS. THROUGH USE OF A BOOKLET CONTAINING PICTORIAL PRESENTATIONS, STUDENTS MUST RESPOND TO A TAPE RECORDING IDENTIFYING THE PICTURE AND THE SPOKEN TERM. THE EXPERIMENT WAS CONDUCTED IN THESE THREE SEPARATE SCHOOLS AND A PATTERN OF TRAINING WAS IDENTIFIED. THE FACT WAS ESTABLISHED THAT ALMOST ALL UPPER GRADE CHILDREN CAN BE TRAINED TO BE TUTORS. THE SHORTCOMINGS OF THE PROGRAM WERE--(1) NO EFFECTIVE EVALUATION INSTRUMENT WAS DEVELOPED TO TEST THE MASTERY OF SKILLS BY THE TUTORS, AND (2) THERE WAS A QUESTION OF WHETHER THE CHILD BEING TUTORED REALLY LEARNS SINCE TUTOR-LEARNER INTERACTION IS SO VITAL TO LEARNING GAINS. THIS PAPER WAS PRESENTED AT THE 1968 AMERICAN EDUCATIONAL RESEARCH ASSOCIATION ANNUAL MEETING, CHICAGO, ILLINOIS, FEBRUARY 1968. (WN)

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TRAINING STUDENTS TO TUTOR[1]

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The research being reported was conducted as part of a larger study by System Development Corporation in Santa Monica, funded by the Ford Foundation. Its purpose was to develop effective classroom instruction for Mexican-American first grade students. In the development of an instructional system, seven major instructional procedures evolved, one being the use of 5th and 6th graders as tutors for the first graders.

This sub-study dealt with the empirical development of a training program for the 5th and 6th graders who would be doing structured tutoring, using pre-planned instruction with the tutor acting as a feedback mechanism and assisting the learners with difficulties. The pre-planned instruction they were to be trained to work with was conveyed by booklets and tape recordings; taped messages called for the learner to make various responses to pictorial presentations in a booklet. Preliminary investigation of upper grade elementary children acting as structured tutors made it apparent that the tutors would need to be trained in the use of the instructional materials. Once the necessity for the training of tutors became apparent, it was determined that the following should be investigated: 1. What are the tutorial capabilities of upper grade elementary children in terms of decision making, etc? 2. What behavioral skills are necessary to work with the pre-planned instructional materials? 3. What procedures will be most effective in training the older children in the mastery of the behavioral skills that will be identified?

This paper treats the research conducted on these questions. The paper is made up of four sections: 1. The determination of skills tutors must master; 2. The empirical development of tutor-training procedures; 3. The description of the tutor-training package; and 4. A discussion of tutor training.

The first critical task was determining the specifications the training program must meet if it were to serve its purpose. It was stipulated that the training program be designed so that it could be implemented by someone other than the experimenter. Second, it was specified that the training program should not exceed three half-hour training sessions. Third, it should train tutors in the mastery of behavioral skills that result in the effective use of the pre-planned instructional materials. Finally, the program should train tutors to operate a tape recorder so they would be capable of working completely independently of the instructor.

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The first phase of the study consisted of identifying the behavioral skills required in structured tutoring, (again it should be noted that structured tutoring has reference to the situation where the instruction is pre-planned, with the tutor acting as a feedback mechanism and assisting the learner with difficulties as they occur). In an effort to get a "feel" for the tutorial relationship, the experimenter had a tutor operate in a relatively unstructured situation. The tutor was provided with instructional booklets, but worked without the tape, and was only given loose general suggestions on how to approach the tutorial task. The experimenter then observed the tutor working with a younger child and provided the tutor with suggestions on how to handle different situations that developed, especially the failure of the learner to make a response and incorrect responses on the part of the learner. After two such sessions, the decision to use a tape recorder as the vehicle for question-asking was confirmed: it was apparent that if the tutors were to provide cues, instructions, etc., the tutors would need much more training than could be accomplished in three half-hour sessions.

As the next step, tutors were observed while working with learners using the booklets and tape recorder. Tutors were given a basic idea of their tasks, then were given additional instruction as needed. A linear approach was followed: as additional skills were identified, tutors were trained to use these skills, and when new children were selected as tutors they were trained in all the skills which had been identified up to that point. Following extensive observation of the tutors working with the younger children, a number of behavioral skills were identified as being most relevant to the tutorial relationship: 1. How to handle the following situations: correct response, incorrect response, no response, inappropriate response; 2. Orienting the learner to the tutorial situation; 3. Establishing and maintaining rapport with the learner; 4. The importance of the learner making a response before he is given the correct answer; 5. The importance of the tutor never telling the child he is wrong; 6. Bases for deciding when to skip ahead in the instruction or to repeat instruction.

Once these behavioral skills were identified, four different training procedures were formulated and tried out. One group received oral training, in which the experimenter explained what the tutor was to do, and the tutor had no practice with the skills previous to working with a learner. Another group went through programmed materials followed by a session in which the experimenter played the role of the learner and the tutor practiced the appropriate skills. A third group received only the programmed materials. The last group received oral training followed by a session in which the experimenter played the role of the learner and the tutor practiced the specific skills. Programmed materials followed by a role playing practice session proved to be the most effective training procedure. It was noted that even though the tutors were able to answer all the criterion items correctly after going through the program, they did not fully comprehend the concepts, and needed practice. Future investigation of this strategy in training the tutors revealed that the materials the tutors were required to study on their own need not be

programmed. Tutors took almost an hour to go through the program, and 15 to 20 minutes when the same information was prepared in text form. The programmed material failed to produce better comprehension of the concepts than simply reading an explanation of the concepts.

Tutors who had been trained next were observed several times working with learners. As a result of the observations, additions were made to the tutor training procedures: 1. Skills that are dealt with in the materials the tutors study on their own should be discussed and clarified before tutors practice the skills; 2. Tutors need some criteria for acceptable responses from the learners; 3. Tutors need to assume the responsibility for getting the learner to attend to the materials; 4. Tutors need more practice in repeating a question when a learner fails to respond to the taped message; 5. The tutors should be provided with the "why" of key behaviors (e.g., positive reinforcement.)

At this point in the development of the training program the entire tutor-training "package" was assembled and implemented by an elementary teacher. The package contained a guide for the adult serving as the trainer, study materials for the tutors, charts to be used during the practice sessions, and a special booklet and tape. The teacher went through the package so as to be acquainted with it, then trained four tutors.

Based on experiences with the materials and observations of the elementary teacher's implementations of the materials, additional modifications were made in the training program. It was apparent that tutors who were trained by the tutor training program demonstrated greater mastery of the skills and more confidence than those who had been trained on the job, piecemeal, while working with a learner.

In its final form the tutor-training package consisted of: a trainer's guide, tutor's study materials, tutor's practice booklet and tape, branching practice tape, and charts. The guide consists of an introduction that gives a brief overview of the training program and some idea of how the training sessions are to be handled. The guide provides directions on methods of presentation that have been most successful, a specification of materials necessary to implement the training program, and specific instructions for conducting the three training sessions.

A second part of the package is the materials the tutors study between the training sessions. These materials spell out the skills the tutors will be practicing in the next training session, and indicate what they will need to know for the next training session.

Third, the tutor-training package contains nine charts. Some of the charts are used more than once; how they are to be used is clearly defined in the trainer's guide. The primary use is as a summary of key concepts the trainer goes over with the tutors during training sessions.

In the development of training procedures, the opportunity for tutors to practice appropriate behaviors proved to be most important. Consequently, special practice tapes and booklets were developed to provide every tutor opportunities to practice each of the specified skills. The critical dimension of these practice materials is role-playing by tutors, in which tutors alternate playing tutor and learner. Practice through role-playing has proved to be the most effective instructional component in the training package.

Thus far the tutor-training package has been used in three elementary schools. In each instance a different member of the staff handled the training, and the number of upper-grade children trained as tutors varied greatly. In one school the training was handled by the vice principal, and five children were trained, four girls and one boy. The vice principal reported that he found the trainer's guide very clear and experienced no difficulties in carrying out the training program. At the conclusion of the training, the tutors were observed by the vice principal and the participating teacher. It was found that the mastery of the specified skills by the tutors was adequate, and it was not felt any additional training was necessary.

In the second school the training was done by the Principal, and 46 5th and 6th graders were trained, half of whom were boys. The Principal found the training program extremely effective, and was especially impressed with the methods that were employed in the training program. Based on observations by the school personnel involved, it was reported that tutors demonstrated mastery of specified tutor skills. The Principal also reported he had used the basic ideas in the training package with mothers and high school students who were to tutor on a voluntary basis.

A great deal was learned from the implementation of the tutor-training program in the third school. This school had already been doing some interesting things in the area of tutoring, and the principal was especially receptive to the idea of trying out the tutor-training program. A remedial reading teacher was designated as the tutor trainer, and trained twelve 6th graders, six boys and six girls. Since the school had only one tape recorder, little time was spent in training the tutors to operate a recorder. A second group of tutors was also trained, consisting of six 4th and 5th graders, three girls and three boys. Some of the older children who were trained were reluctant to tutor, and the remedial reading teacher asked the other tutors to suggest children from their classes who they felt would make good tutors. She was impressed with the accuracy of their predictions. Secondly, she had the tutors who had already been trained, train the children they had nominated, and found that tutors were capable of training new candidates, using the tutor-training package. The remedial reading teacher observed the tutors working with younger children, and was extremely impressed at how well the tutors had mastered the skills. She noted especially that they handled themselves so much better than children who they had previously doing tutoring without receiving any specific training. A final interesting point was learned in this third school. Because there was only one tape recorder and because some of the first graders did

know enough English to follow the tape, tutors worked without the recorder, using copies of the booklets that had the dialogue typed on the pages. It was reported that this procedure worked extremely well, and may be preferable.

What has been learned about tutor training? To what degree are the results of this research generalizable, and to what degree are they specific to these particular circumstances?

In the area of training procedures and techniques, a pattern for training was identified. First, it proved advantageous to have the tutors study materials which explain what it is they are expected to know in the training sessions. Second, it is very important that the concepts that are studied independently be discussed and clarified before the tutors are called on to demonstrate mastery of the concepts. Third, it is extremely important that the tutors are provided with opportunities to practice the skills in a role-playing situation. And fourth, the importance of allowing the tutors to work with learners after training in the basic tutorial skills, before they are trained to skip ahead. It was found that if the tutors did not have the opportunity to work with a learner and develop confidence in the use of the basic tutorial skills before being trained to skip ahead, they became so preoccupied with procedure that their effectiveness was impaired.

Of prime importance was the discovery that almost all upper-grade children can be trained to do this type of tutoring. Children were selected to be trained at random, and the majority were able to master the tutorial skills. However, it was noted that the more capable students were able to deal more effectively with unexpected problems. It was found that younger children with severe learning difficulty would frequently create situations that would exceed the scope of the basic tutorial skills, and with this type of learner the more capable tutors were most effective. If tutors with less ability are assigned to work with learners with moderate or average deficiencie they experience much success. If anything, the less capable child may be the most effective tutor, since he demonstrates more patience and understanding.

In that this tutor-training package is dependent on the package being self-contained, the feasibility of developing a tutor-training package that could be implemented by any of the personnel in an elementary school is extremely critical. If the three persons who have implemented this training program are representative of existing elementary personnel, this study does suggest that it is feasible to develop training materials that are self-contained which will produce specified behavioral skills. It should be noted that the choice of who would train the tutors was left entirely up to the schools.

Anyone looking at this particular training program in light of tutoring per se, should keep in mind that this package was developed for a specific tutorial setting using particular instructional materials and methods, and consequently the degree to which these results are appropriate or generalizable to other tutorial settings is limited.

It does appear, however, that some basic notions, such as having the tutor provide positive reinforcement and avoiding punishing behavior, would be applicable to most tutorial relationships. If this training package was to be used for training tutors who would work with learners in an unstructured setting, not only would the training have to be expanded intensively, but the materials would have to be modified in many ways.

Hopefully, in the future the training of tutors will be approached empirically and appropriate aspects of tutor training will become more generalizable. Currently, because so little has been done in this area, the report of this research and the training package that was developed need to be viewed as a beginning in the identification and development of general tutor training procedures.

The most serious deficiency in this study is that no evaluation instrument was developed to assess the mastery of the skills by the tutors. Future developmental research in this area would be significantly enhanced if a criterion instrument were developed and validated, which would provide a measure of tutorial skills. It would appear that this criterion instrument would have to measure mastery of the skills in a genuine tutorial setting, while the tutor is working with a learner.

A second vital criterion consideration is whether or not the child being tutored learns. The assertion is made regularly that individual tutoring automatically results in significant learning gains, yet research done in this area has repeatedly demonstrated that tutoring does not necessarily guarantee significant learning gains. It is apparent that the learning gains are primarily dependent on the way the tutor interacts with the learner, and unless this interaction is specified and controlled, there is little advantage to individual tutoring. Consequently, the need in this particular area is to identify and validate the tutorial skills that do produce significant learning.